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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte LEE EVAN NAKAMURA and STEWART EUGENE TATE

Appeal No. 2005-0606
Application No. 09/637,381

ON BRIEF

Before KRASS, BARRY and SAADAT, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

Decision On Appeal

This is a decision on appeal from the final rejection of claims 1-24, and 76-81.

The invention pertains to a data access system. In particular, a method, an apparatus, and a program storage medium are disclosed for storing data in a memory through the creation of a persistent in-memory database table and loading the data into that in-memory database table.

This case is related to Application Serial No. 10/145,544, Appeal No. 2004-2245, decided March 24, 2005, which was directed to retrieving data from an in-memory database table; and to Application Serial No. 10/145,543, Appeal No. 204-2258, decided May 25, 2005, which was directed to locating data in an in-memory database table.

Representative independent claim 1 is reproduced as follows:

1. A method of storing data in a memory of a computer, comprising:

creating a persistent in-memory database table; and

loading data into the in-memory database table.

The examiner relies on the following references:

Farrell	5,664,153	Sep. 2, 1997
Shaughnessy	5,692,178	Nov. 25, 1997
Blakeley et al. (Blakeley)	5,761,493	Jun. 2, 1998
Sarkar	6,012,067	Jan. 4, 2000
Pereira	6,122,640	Sep. 19, 2000 (filed Sep. 22, 1998)
Benedikt et al. (Benedikt)	6,202,063	Mar. 13, 2001 (filed May 28, 1999)
Dugan et al. (Dugan)	6,363,411	Mar. 26, 2002 (filed Oct. 19, 1999)
Carper et al. (Carper)	6,390,374	May 21, 2002 (filed Aug. 31, 1999)
Meyerzon et al. (Meyerzon)	6,424,966	Jul. 23, 2002 (filed Jun. 30, 1998)

Claims 1-24, and 76-81 stand rejected under 35 U.S.C. § 103.[1] As evidence of obviousness, the examiner offers the combination of Pereira and Carper with regard to independent claims 1, 9, and 17, alternatively adding to this combination, Sarkar with regard to claims 2, 3, 10, 11, 18, and 19; Shaughnessy with regard to claims 4, 8, 12, 16, 20, and 24; Blakeley with regard to claims 5, 13, and 21; Blakeley and Meyerzon with regard to claims 6, 14, and 22; Benedikt with regard to claims 7, 15, and 23; Dugan with regard to claims 76, 78, and 80; and Farrell with regard to claims 77, 79, and 81.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467

[1]At page 3 of the answer, there is an indication by the examiner that these claims also stand rejected under 35 U.S.C. § 102(a), but this is clearly an error since no such rejection appears in either the final rejection or the answer.

(1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teachings, suggestions or implications in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472,

223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

With regard to the independent claims, the examiner asserts that Pereira teaches the creation of an in-memory database table at column 2, lines 53-56, and column 9, lines 62-66; as well as the loading of data into the in-memory database table at column 19, lines 43-51, and column 9, lines 62-66.

The examiner recognizes that Pereira does not teach the use of a persistent in-memory table so the examiner turns to Carper, at column 14, lines 41-44, for such a teaching, concluding that it would have been obvious to persistently store tables in memory in order to have rapid access to the data in these tables.

We have reviewed the references cited by the examiner, especially column 2, lines 53-56, and column 9, lines 62-66, of Pereira, cited by the examiner as a teaching of the claimed "in-memory database table," and we conclude that Pereira does not teach or suggest this specific claim limitation.

The in-memory database table of the claimed invention contains all data to be retrieved. The cited portion of column 2 of Pereira is directed only to creating a table and making a decision about the structure of a database table. There is no mention, nor suggestion, of an "in-memory database table," as

claimed. The cited portion of column 9 of Pereira is directed to a mapping which can be stored as a table in the database management system (DBMS), or in memory. The problem with the examiner's reliance on this portion of Pereira is that, first, Pereira only mentions storing a "mapping" as a table. This is a far cry from storing all of the data that is to be retrieved. Rather, the mapping table of Pereira is utilized to process deletions of specific rows, if needed, during a reorganization process (column 9, lines 60-62).

Further, Pereira indicates that the mapping "can be stored in the form of a table in the DBMS, in memory, on a file system, or any other method in which the mapping table may be maintained and later used by the reorganization process" (column 9, lines 63-66). Where the mapping is stored is disclosed in Pereira as alternatives, e.g., in the DBMS or in memory. There is no suggestion in Pereira that the mapping, even if it contained all data to be retrieved, is stored in a DBMS which is, itself, stored in memory. Instead, the disclosure of Pereira seems to indicate that the mapping may be stored in a DBMS or it may be stored in memory. But, there is absolutely no indication in Pereira that the mapping may be stored in an "in-memory database table," as claimed.

Moreover, the instant claims call for the creation of a "persistent" in-memory database table. Even if the mapping of Pereira could be considered as all data to be retrieved, which it cannot, and even if we assumed, which we do not, that such mapping may be stored in a DBMS which is stored on an "in-memory database table," any such "in-memory database table" in Pereira would not be "persistent" since it appears from the disclosure of Pereira that the mapping table is maintained only until a reorganization process. While we realize that the examiner relied on Carper for the "persistent" limitation, the cited portion of Carper only indicates that a command table may be stored in memory and that like all "persistent data objects and files in memory, each command table must be referenced in a file directory" (column 14, lines 41-44). The command table of Carper is clearly not an "in-memory database table," as claimed, since not all the data to be retrieved is within the command table. The command table of Carper serves to identify every command executable by a new application (column 14, lines 35-36); it does not contain data, and certainly not all data to be retrieved, as in the claimed "persistent in-memory database table." Merely because Carper recites "persistent" data objects in memory, the examiner has seen fit to apply this "persistent" limitation to

the mapping table of Pereira. But, as indicated supra, the mapping table of Pereira does not appear to be "persistent" and the examiner has established no convincing rationale as to why it would have been obvious to make the mapping table of Pereira persistent. Even so, as pointed out supra, the mapping table of Pereira is not an "in-memory database table," as claimed.

Thus, the examiner's rationale is faulty on many fronts and we will not sustain the rejection of independent claims 1, 9, and 17 under 35 U.S.C. § 103 as, in our view, the examiner has failed to establish a prima facie case of obviousness with regard to the instant claimed subject matter.

Since it does not appear that any of the other seven references relied on by the examiner in rejecting the dependent claims provides for the deficiencies of Pereira and Carper, and the examiner has certainly not pointed to anything in those references to the contrary, we also will not sustain the rejection of claims 2-8, 10-16, 18-24, and 76-81 under 35 U.S.C. § 103.

Accordingly, the examiner's decision rejecting claims 1-24, and 76-81 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS)
Administrative Patent Judge)
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LANCE LEONARD BARRY) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
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)
MAHSHID D. SAADAT)
Administrative Patent Judge)

EK/rwk

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037